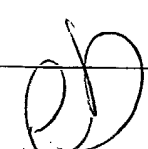


Notice of Allowability	Application No.	Applicant(s)	
	10/674,855	BEALL ET AL.	
	Examiner	Art Unit	
Carlos Lopez	1731		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Telephone Interview Held on 6/22/04.
2. ☒ The allowed claim(s) is/are 21-32.
3. ☒ The drawings filed on 30 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>6/22/04</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>9/30/03</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 21-32, drawn to method of making glass-ceramic, classified in class 65, subclass 33.1.
- II. Claim 43, drawn to an optical element, classified in class 501, subclass 69.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the claimed apparatus can be made to another different process such as melting the glass components at a higher or lower temperature. Alternatively, the claimed glass-ceramic can be made by a sol-gel method.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Svetlana Short on 6/22/04 a provisional election was made without traverse to prosecute the invention of claims 21-32. Affirmation of this election must be made by applicant in replying to this Office action. Claim 43 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Svetlana Short on 6/22/04. It was noted to applicant's representative that it was not clear to what liquidus temperature was being referred to in claim 23. Additionally, it

was noted to applicant that the term "said crystallinity" lacked antecedent basis and that it was not clear if the term "crystallinity" was being referred to the formed glass-ceramic or to the glass composition. The amendment below remedies the noted ambiguities. Additionally, it was noted to applicant that claim 43 was drawn to a distinct invention. Applicant agreed to cancel claim 43.

The application has been amended as follows:

In the specification, in the first page at the first line of the specification has been rewritten to read as follows:

This application is a divisional of application Serial No. 09/929,549 filed August 14, 2001, now US Patent No. 6,660,669 and the benefit of priority pursuant to 35 U.S.C. § 120 is hereby claimed.

The title has been rewritten to read as follows:

Method of making forsterite glass-ceramics ~~of high crystallinity and chrome~~
content

Claim 23 has been rewritten to read as follows:

23. (Currently Amended) The method according to claim 21, further comprising achieving at least 30% by weight of forsterite component in said glass-ceramic at a liquidus temperature of said glass composition of about 1525°C or below.

Claim 30 has been rewritten to read as follows:

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30. (Currently Amended) The method according to claim 22, wherein ~~said~~ crystallinity of said glass-ceramic is about 35% or more by weight of forsterite components.

Claim 31 has been rewritten to read as follows:

31. (Currently Amended) The method according to claim 22, wherein crystals in the crystal phase of said glass-ceramic have a size no larger than about 60nm.

Claim 32 has been rewritten to read as follows:

32. (Currently Amended) The method according to claim 22, wherein crystals in ~~the~~ crystal phase of said glass-ceramic have a size between about 10nm to about 35nm.

This application is in condition for allowance except for the presence of claim 43 to an invention non-elected without traverse. Accordingly, claim 43 has been cancelled.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The cited prior art fails to disclose or reasonably suggest a method of dissolving at least 30% by weight of forsterite component in a glass-ceramic by melting a glass composition having R_2O -MgO-Al₂O₃-SiO₂, wherein R is an alkali ion containing in weight percent at least about 3% of Na₂O coupled with greater than 5% of TiO₂ at a temperature between 1575°C to about 1650°C.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


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